



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,731	07/14/2003	Mitsuo Yamada	023971-0291	3612

22428 7590 01/24/2006

FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/617,731	<b>Applicant(s)</b> YAMADA ET AL.	
	<b>Examiner</b> Michael C. Miggins	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7-18 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/26/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### REJECTIONS WITHDRAWN

1. All of the objections, the 103(a) and the double patenting rejections set forth in the final rejection of 4/26/05, pages 3-7, paragraphs 5-10 are withdrawn.

### REJECTIONS REPEATED

2. There are no rejections repeated.

### NEW REJECTIONS

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6591871) in view of Ito et al. (US 6576312).

Smith discloses a resinous fuel transport tube (abstract) comprising at least one first cylindrical resin layer comprising at least one resin selected from the group consisting of polybutylene terephthalate, polybutylene naphthalate, polyethylene terephthalate and polyethylene naphthalate (14 from Fig. 2 and column 3, lines 41-67), and at least one second cylindrical resin layer formed generally coaxially with the at least one first cylindrical layer comprising

Art Unit: 1772

polybutylene terephthalate or polybutylene naphthalate wherein the second layer is in direct contact with the first layer (12 from Fig. 2 and column 3, lines 41-67) and further comprising an innermost cylindrical layer which is electrically conductive comprising polybutylene terephthalate or polybutylene naphthalate and wherein the innermost electrically conductive layer is independent from the at least one first cylindrical resin layer and the at least one second cylindrical layer (19 from Fig. 3 and column 3, lines 41-67) (applies to instant claims 1, 14-18 and 13).

Smith fails to disclose wherein the second layer (the middle layer) comprises block copolymer which comprises at least one segment selected from the group consisting of polybutylene terephthalate and polybutylene naphthalate as a hard segment, and at least one segment selected from the group consisting of polytetramethylene glycol and polycaprolactone as a soft segment, wherein the conductive cylindrical resin layer forming the innermost layer has a volume resistivity value of not higher than  $10^6$  ohmxcn, wherein the conductive cylindrical resin layer forming the innermost layer has a thickness within a range of from 3 to 30% of a total wall thickness of all the layers of the resinous tube, wherein the at least one first resin layer has a total thickness with a range of from 3 to 70% of a total thickness of all the layers of the resinous tube, wherein the conductive cylindrical resin layer forms part of the at least one first cylindrical resin layer and the at least one second cylindrical resin layer.

Ito '312 discloses wherein the second layer (the middle layer) comprises block copolymer which comprises at least one segment selected from the group

Art Unit: 1772

consisting of polybutylene terephthalate and polybutylene naphthalate as a hard segment, and at least one segment selected from the group consisting of polytetramethylene glycol and polycaprolactone as a soft segment (column 5, line 62 through column 6, line 32 and column 6, lines 57 through column 7, line 5), wherein the conductive cylindrical resin layer forming the innermost layer has a volume resistivity value of not higher than  $10^6$  ohm x cm (column 6, lines 33-56), wherein the conductive cylindrical resin layer forming the innermost layer has a thickness within a range of from 3 to 30% of a total wall thickness of all the layers of the resinous tube, wherein the at least one first resin layer has a total thickness with a range of from 3 to 70% of a total thickness of all the layers of the resinous tube (Tables 1-2 and column 6, lines 57 through column 7, line 5), wherein the conductive cylindrical resin layer forms part of the at least one first cylindrical resin layer and the at least one second cylindrical resin layer (column 6, lines 57 through column 7, line 5) (applies to instant claims 1-4, 12, 14 and 18) in a fuel tube (abstract) for the purpose of providing excellent resistances such as gasoline, detergent and hydrolysis (column 2, lines 61-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the second layer (the middle layer) comprises block copolymer which comprises at least one segment selected from the group consisting of polybutylene terephthalate and polybutylene naphthalate as a hard segment, and at least one segment selected from the group consisting of polytetramethylene glycol and polycaprolactone as a soft segment, wherein the conductive cylindrical resin layer forming the

Art Unit: 1772

innermost layer has a volume resistivity value of not higher than  $10^6$  ohmxcm, wherein the conductive cylindrical resin layer forming the innermost layer has a thickness within a range of from 3 to 30% of a total wall thickness of all the layers of the resinous tube, wherein the at least one first resin layer has a total thickness with a range of from 3 to 70% of a total thickness of all the layers of the resinous tube, wherein the conductive cylindrical resin layer forms part of the at least one first cylindrical resin layer and the at least one second cylindrical resin layer in the tube of Smith in order to provide excellent resistances such as gasoline, detergent and hydrolysis as taught or suggested by Ito '312.

5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6591871) in view of Ito et al. (US 6576312), as applied to claims 1-4 and 12-18 above, and further in view of Ito et al. (US 6619330).

Smith fails to disclose wherein the second or innermost layer comprises at least one of a hydrogenated dimer acid or an ester-formable derivative of hydrogenated dimer acid.

Ito '330 discloses a polybutylene terephthalate comprising hydrogenated dimer acids (column 2, lines 21-67) in a fuel hose (abstract) for the purpose of providing improved resistance to corrosion (column 2, lines 1-8) and thus it would have been obvious to have provided the dimer acid in either the second or innermost layer of Smith, especially since Smith discloses that the second or innermost layer comprises polybutylene terephthalate as discussed above, in order to provide improved resistance to corrosion.

Art Unit: 1772

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the second or innermost layer comprises at least one of a hydrogenated dimer acid or an ester-formable derivative of hydrogenated dimer acid in the hose of Smith in order to provide improved resistance to corrosion as taught or suggested by Ito '330.

6. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6591871) in view of Ito et al. (US 6576312), as applied to claims 1-4 and 12-18 above, and further in view of Ozawa et al. (US 6589647).

Smith fails disclose wherein the conductive resin layer further comprises ethylene-propylene rubber particles having a particle size of not larger than 1 micron.

Ozawa discloses a conductive resin layer further comprises ethylene-propylene rubber particles having a particle size of not larger than 1 micron (abstract, column 3, lines 16-22, column 5, lines 17-52, column 10, lines 24-32 and Table 3) in hose (column 10, lines 24-32) for the purpose of providing the ability to freely control the volume resistivity.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the conductive resin layer further comprises ethylene-propylene rubber particles having a particle size of not larger than 1 micron in the hose of Smith in order to freely control the volume resistivity as taught or suggested by Ozawa.

Art Unit: 1772

***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-4, 7-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 10980313 in view of Smith (US 6591871).

Claims 1-18 of copending Application No. 10980313 substantially recite applicant's instant claims. However, claims 1-18 of copending Application No. 10980313 fail to recite an innermost conducting layer.

Smith recites an innermost conducting layer as discussed above for the purpose of dissipating static charge and therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided an innermost conducting layer in the invention recited in claims 1-18 of



Art Unit: 1772

copending Application No. 10980313 in order to dissipate static charge as taught or suggested by Smith.

This is a provisional obviousness-type double patenting rejection.

### **ANSWERS TO APPLICANT'S ARGUMENTS**

9. Applicant's arguments filed 10/26/05 have been carefully considered but are moot in view of the new grounds for rejection set forth above.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1772

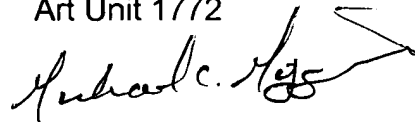
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCM  
January 9, 2006

Michael C. Miggins  
Primary Examiner  
Art Unit 1772

A handwritten signature in black ink, appearing to read "Michael C. Miggins", with a stylized flourish extending to the right.